CLAIMS

1. Peptide derived from an antibiotic peptide or an analogue thereof, characterised in that it is devoid of a disulphide bond.

2. Peptide derived from an antibiotic peptide or an analogue thereof, characterised in that all the cysteine residues, optionally except one, are removed, replaced by another amino acid residue or blocked at their SH group level.

3. Linear peptide according to any one of claims 1 to 2, characterised in that it meets one of the following formulas

Baa Xaa Xaa Baa Xaa Xaa Xaa Xaa Baa Baa Baa Xaa Xaa Xaa Xaa Xaa Baa (I) (SEQ ID NO:11)

Baa Baa Xaa Xaa Xaa Baa Xaa Xaa Xaa Baa Xaa Xaa Xaa Baa Baa Xaa Baa (II) (SEQ ID NO:12)

in which

- the Baa groups, identical or different, represent an amino acid residue whose side chain carries a base group, and

- groups Xaa, identical or different, represent an aliphatic or aromatic amino acid residue, or in that it is made up of a succession of at least 5, preferably at least 7, successive amino acids of either of formulas (I) or (II).

4. Linear peptide according to claim 3, characterised in that the Baa groups are chosen from among arginine, lysine, diaminoacetic acid,

diaminobutyric 30 acid, diaminoproprionic acid, ornithine.

5. Linear peptide according to one of claims 3 to 4, characterised in that the Xaa groups are chosen from among glycine, alanine, valine, norleucine, isoleucine, leucine, cysteine, cysteine^{Acm}, penicillamine, methionine, serine, threonine, asparagine, glutamine, phenylalanine, histidine, tryptophan, tyrosine, proline, Amino butyric acid, carboxylic amino-1-cyclohexane acid, Amino isobutyric acid, carboxylic 2-aminotetraline, 4-bromophenylalanine, tert-Leucine, 4-chlorophenylalanine, β-cyclohexylalanine, 3,4-dichlorophenylalanine, 4-fluorophenylalanine, homoleucine, β-homoleucine, homophenylalanine, 4-methylphenylalanine, 1-naphthylalanine, 2-naphthylalanine, 4-nitrophenylalanine, 3-nitrotyrosine, norvaline, phenylglycine, 3-pyridylalanine, and β-(2-Thienyl)-alanine.

6. Linear peptide according to any one of claims 1 to 5, characterised in that it meets one of the following formulas

Arg Xaa Xaa Arg Xaa Uaa Xaa Uaa Arg Arg Arg Xaa Uaa Xaa Uaa Xaa Xaa Arg -NH_2 (V) (SEQ ID NO : 13)

Arg Arg Xaa Uaa Xaa Arg Xaa Uaa Xaa Arg Xaa Xaa Uaa Xaa Arg Arg Uaa Arg -NH_2 (VI) (SEQ ID NO : 14)

in which :

- Uaa represents serine or threonine,
- the Xaa groups, identical or different, represent an amino acid which may or may not be natural, including D-amino acids, either aliphatic or aromatic, such as glycine, alanine, valine, norleucine, isoleucine, leucine, cysteine, cysteine^{Acm}, penicillamine, methionine,

serine, threonine, asparagine, glutamine, phenylalanine, histidine, tryptophan, tyrosine, proline, Amino butyric acid, carboxylic amino-1-cyclohexane acid, Amino isobutyric acid, carboxylic 2-aminotetraline, 4-bromophenylalanine, tert-Leucine, 4-chlorophenylalanine, β-cyclohexylalanine, 3,4-dichlorophenylalanine, 4-fluorophenylalanine, homoleucine, β-homoleucine, homophenylalanine, 4-methylphenylalanine, 1-naphthylalanine, 2-naphthylalanine, 4-nitrophenylalanine, 3-nitrotyrosine, norvaline, phenylglycine, 3-pyridylalanine, and β-(2-Thienyl)-alanine.

7. Linear peptide according to any one of claims 1 to 6, having the following sequences

Arg Gly Gly Arg Leu Ser Tyr Ser Arg Arg Arg Phe Ser Val Ser Val Gly Arg (SEQ ID NO : 15),

Arg Gly Val Ser Val Ser Phe Arg Arg Arg Ser Tyr Ser Leu Arg Gly Gly Arg (SEQ ID NO : 17),

Glu Gly Gly Glu Leu Ser Tyr Ser Glu Glu Glu Phe Ser Val Ser Val Gly Glu (SEQ ID NO : 18),

Arg Gly Gly Arg Leu Ala Tyr Arg Leu Leu Arg Phe Ala Ile Arg Val Gly Arg (SEQ ID NO : 19),

Oaa Gly Gly Oaa Xaa Xaa Baa Oaa Xaa Xaa Oaa Baa Xaa Xaa Xaa Oaa Xaa Gly (SEQ ID NO : 20),

Arg Ala Ala Arg Leu Gly Tyr Arg Xaa Xaa Arg Phe Gly Zaa Arg Val Gly Arg (SEQ ID NO : 21),

Tyr Arg Arg Arg Phe Ser Val Ser Val Arg (SEQ ID NO : 22),

Arg Arg Leu Ser Tyr Ser Arg Arg Arg Phe (SEQ ID NO : 23),

Arg Arg Leu Ser Tyr Ser Arg Arg Arg Phe Ser Val Ser Val Arg (SEQ ID NO : 24),

Arg Gly Gly Arg Leu Ser Tyr Ser Arg Arg Arg Phe Ser Thr Ser Thr Gly Arg (SEQ ID NO : 25),

in which

Baa represents Napthylalanine,

0aa represents Ornithine,

Xaa represents Norleucine, and

Zaa represents Norvaline.

8. Linear peptide according to any one of claims 1 to 6, having the following sequences

Lys Trp Ser Phe Arg Val Ser Tyr Arg Gly Ile Ser Tyr Arg Arg Ser Arg (SEQ ID NO : 26),

Arg Trp Ser Phe Arg Val Ser Tyr Arg Gly Ile Ser Tyr Arg Arg Ser Arg (SEQ ID NO : 27),

Arg Ser Arg Arg Tyr Ser Ile Gly Arg Tyr Ser Val Arg Phe Ser Trp Lys (SEQ ID NO : 30),

Oaa Baa Xaa Baa Oaa Xaa Xaa Baa Oaa Gly Xaa Oaa Baa Xaa Xaa Oaa Xaa (SEQ ID NO : 31),

Lys Trp Ala Phe Arg Val Ala Tyr Arg Gly Ile Arg Tyr Leu Leu Arg Leu (SEQ ID NO : 32),

Lys Tyr Ala Trp Arg Val Ala His Arg Gly Ile Arg Trp Leu Leu Arg Xaa (SEQ ID NO : 33)

in which :

Baa representsNapthylalanine,

0aa represents Ornithine,

Xaa represents Norleucine, and

Zaa represents Norvaline.

9. Use of an antibiotic peptide or an analogue thereof, devoid of a disulphide bond, to vector active substances in an organism.

10. Use of a peptide according to any one of claims 1 to 8 to vector active substances in an organism.

11. Compound with the following formula (IV)

$(Y)_n \quad (A) \quad (Z)_m \quad IV_m$ (IV)

in which :

- A represents a linear peptide derived from

an antibiotic peptide or from an analogue thereof,

- Z represents an active substance

- Y represents a signal agent

- n is 0 or more, advantageously 0 or 1,

- m is 1 or more, preferably up to 10, advantageously up to 5.

12. Compound of formula (IV) in which A is defined as in any one of claims 1 to 8.

13. Compound according to one of claims 11 or 12, characterised in that the coupling between the linear peptide (A) and group (Z) or groups (Z) and (Y) is made by one or more covalent, hydrophobic or ionic bonds.

14. Compound according to any one of claims 11 to 13, characterised in that at least one of the active substances (Z) is attached by a covalent bond either to the N-terminal or C-terminal ends or to the primary amino groups, carried by the side chains of the lysines, of linear peptide (A).

15. Compound according to any one of claims 11 to 14, characterised in that at least one signal agent (Y), if present, is attached by a covalent bond to the N-terminal end of linear peptide (A).

16. Pharmaceutical composition, characterised in that as active ingredient it comprises at least one compound of formula (IV) according to any one of claims 11 to 15.

17. Diagnostic agent made up of at least one compound of formula (TV) according to any one of claims 11 to 15.